REMARKS

Initially, Applicants would like to express appreciation to the Examiner for the detailed Official Action provided, and for the acknowledgment of Applicant's Claim for Priority and receipt of the certified copy of the priority document.

Upon entry of the above amendment, claims 1, 2, and 6 will have been amended. Accordingly, claims 1, 2, and 4-6 are currently pending. Applicants respectfully request reconsideration of the outstanding objections and rejections and allowance of claims 1, 2, and 4-6 in the present application. Such action is respectfully requested and is now believed to be appropriate and proper.

The Examiner has rejected claims 2 and 4 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In response thereto, Applicants have amended claim 2 to recite "height", as suggested by the Examiner. Accordingly, in view of the above noted amendments and remarks, it is believed that the rejection of claims 2 and 4 under 35 U.S.C. § 112, first paragraph, has been overcome and Applicants respectfully request reconsideration and withdrawal of the outstanding rejection under 35 U.S.C. § 112, first paragraph.

The Examiner has objected to claim 6 for minor informalities. In response thereto, Applicants have amended claim 6 to delete "and each claw portion extends across the body from one side surface to the other side surface" in lines 13-15, as suggested by the Examiner. Accordingly, in view of the above noted amendments and remarks, it is believed that the objection to claim 6 has been overcome and Applicants respectfully request reconsideration and withdrawal of the outstanding objection to claim 6.

The Examiner has rejected claims 1, 2, 4, and 5 under 35 U.S.C. §103(a) as being unpatentable over LIN '158 (U.S. Patent No. 6,080,158) in view of LIN '827 (U.S. Patent No. 6,325,827).

Although Applicants do not necessarily agree with the Examiner's rejection of claims 1, 2, 4, and 5 on this ground, nevertheless, Applicants have amended independent claim 1 to clearly obviate the above noted ground of rejection in order to expedite prosecution of the present application. Applicants respectfully submit that LIN '158 and LIN '827 fail to teach or suggest the subject matter claimed in claim 1, as amended. In particular, claim 1 sets forth an intervertebral spacer having a withdrawal preventer including, inter alia, "a plurality of linear claw portions continuously extending from one side surface of the body to the other side surface and entirely covering the upper and lower surfaces of the body, each of the plurality of claw portions having a vertex, with the respective vertexes arranged along a curved surface formed to extend generally longitudinally of the body, the upper and lower surfaces of the body slant such that a distance between the upper and lower surfaces at the front side of the intervertebral spacer is greater than a distance between the upper and lower surfaces at the rear side of the intervertebral spacer, and each claw portion is formed in an asymmetric triangle shape, in a section side view, defined by a first surface extending in the direction in which the intervertebral spacer is inserted, a second surface connected to a rear side of the first surface and one of the upper surface and the lower surface of the body".

The LIN '158 intervertebral fusion device includes a plurality of protrusions 131 noncontinuously extending over the surface 120 such that the protrusions are

disconnected by the upwardly extending elastic slots 111. Accordingly, the protrusions 131 of the LIN '158 device are not "continuously extending from one side surface of the body to the other side surface and entirely covering the upper and lower surfaces of the body", as recited in claim 1, as amended. Further, as recognized by the Examiner, the LIN '158 patent fails to teach or suggest claws having an asymmetric triangular shape with surfaces having different angles.

The LIN '827 patent is directed to an intervertebral implant which includes a pair of walls 22a, 22b with an opening therebetween which prevents the barbs 24 from continuously extending from one side surface of the body to the other. Accordingly, the LIN 827 patent fails to teach or suggest protrusions that are "continuously extending from one side surface of the body to the other side surface and entirely covering the upper and lower surfaces of the body" as recited in claim 1, as amended. Therefore, the LIN '827 patent fails to cure the deficiencies of the LIN '158 device, and even assuming, arguendo, that the teachings of LIN '158 and LIN '827 have been properly combined, Applicants' claimed intervertebral spacer would not have resulted from the combined teachings thereof.

Further, there is nothing in the cited prior art that would lead one of ordinary skill in the art to make the modification suggested by the Examiner in the rejection of claims 1, 2, 4, and 5 under 35 U.S.C. § 103(a) over LIN '158 in view of LIN '827. In this regard, Applicants respectfully point out that the LIN '158 patent and the LIN '827 patent are directed to entirely different types of spacers. The LIN '827 patent is directed to a spacer having a hole therein 27. The hole 27 of the LIN '827 device is filled with a bone graft bag.

However, the LIN '158 patent is directed to a spacer having a hole therein in which the spacer 100 has holes (or elastic slots) 111 therein that allow the spacer to be deformed when the spacer 100 is inserted into a bone. In other words, the spacer 100 does not require bone graft material. In known spacer technology, the conventional spacer requires a hole and a bone graft material to fill the hole; the spacer may not readily change position inside a bone since the spacer is fixedly attached to the bone by the bone graft material. The LIN '158 device is directed to solving the above noted problem of the conventional spacer requiring bone graft material. In particular, the grooves of the LIN '158 device are formed in several directions to ensure the deformability of the spacer such that the position of the spacer 100 can be changed even if the spacer 100 is inserted into the bones. Additionally, by forming many protrusions 131, unlike the elongated claw portions 17 of Applicants' invention, on surfaces of the spacer 100, even if the spacer 100 is deformed to change position inside the bone, the protrusions 131 are dug into the bones in several directions. Accordingly, the LIN '158 patent and the LIN '827 patent teach entirely different types of spacers. Moreover, in Applicants' invention claimed in the present application, it is not necessary to address this problem. As shown in the figures and as described in the specification, an object of the present invention is to provide a spacer having a withdrawal preventer to prevent the spacer from separating from the bone along an insertion direction of the spacer 1. Therefore, there would be no need, nor would it be desirable, to combine the protrusions 131 of the LIN '158 device to achieve the object of the present invention.

Thus, the only reason to combine the teachings of LIN '158 and LIN '827 results from a review of Applicants' disclosure and the application of impermissible hindsight.

Accordingly, the rejection of claims 1, 2, 4, and 5 under 35 U.S.C. § 103(a) over LIN '158 in view of LIN '827 is improper for all the above reasons and withdrawal thereof is respectfully requested.

The Examiner has also rejected claim 6 under 35 U.S.C. §103(a) as being unpatentable over Lin '158 in view of LIN '827, and further in view of BRANTIGAN (U.S. Patent No. 5,425,772).

Applicants note that LIN '158 and LIN '827 fail to teach or suggest the subject matter claimed, including, inter alia, a plurality of linear claw portions extending from one side surface of the body to the other side surface, as set forth in amended independent claim 1, as described above.

Further, BRANTIGAN fails to cure these deficiencies. Moreover, there is nothing in the cited prior art that would lead one of ordinary skill in the art to make the modification suggested by the Examiner in the rejection of claim 6 under 35 U.S.C. § 103(a) over LIN '158 in view of LIN '827 and further in view of BRANTIGAN. In this regard, Applicants respectfully point out that the LIN '158 patent and the BRANTIGAN patent are directed to entirely different types of spacers. The BRANTIGAN patent is directed to a spacer having grooves 21 therein to be filled with bone graft material. However, as described above, the LIN '158 patent is directed to a spacer having a hole therein in which the spacer 100 has holes 111 that allow the spacer to be deformed when the spacer 100 is inserted into a bone. Therefore, the spacer 100 of LIN '158 does not require bone graft material. Accordingly, the LIN '158 patent and the BRANTIGAN patent teach entirely different types of spacers.

Thus, the only reason to combine the teachings of LIN '158, LIN '827, and BRANTIGAN results from a review of Applicants' disclosure and the application of impermissible hindsight. Even if the teachings of LIN '158, LIN '827, and BRANTIGAN were combined, as suggested by the Examiner, the claimed combination would not result. Accordingly, the rejection of claim 6 under 35 U.S.C. § 103(a) over LIN '158 in view of LIN '827 and further in view of BRANTIGAN is improper for all the above reasons and withdrawal thereof is respectfully requested.

Accordingly, Applicants respectfully request reconsideration and withdrawal of all the rejections, and an early indication of the allowance of claims 1, 2, and 4-6.

SUMMARY AND CONCLUSION

In view of the foregoing, it is submitted that the present amendment is proper and that none of the references of record, considered alone or in any proper combination thereof, anticipate or render obvious Applicants' invention as recited in claims 1, 2, and 4-6. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, consideration of the present amendment, reconsideration of the outstanding Official Action, and allowance of the present amendment and all of the claims therein are respectfully requested and now believed to be appropriate.

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection base upon the prior art,

should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully submitted,
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